Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules to Promote Aviation Safety	)	WT Docket No. 19-140
	)	
WiMAX Forum Petition to Adopt Service Rules for the Aeronautical Mobile Airport Communications System (AeroMACS)	)	RM-11793
	)	
Petition of Sierra Nevada Corporation for Amendment of the Commission's Rules to Allow for Enhanced Flight Vision System Radar under Part 87	)	RM-11799
	)	
Petition of Aviation Spectrum Resources, Inc. for Amendment of Sections 87.173(b) and 87.263(a) of the FCC's Rules to Allow Use of the Lower 136 MHz Band by Aeronautical Enroute Stations	)	RM-11818
	)	
Petition of Airports Council International-North America Regarding Aeronautical Utility Mobile Stations	)	RM-11832

REPLY COMMENTS OF SPIRE GLOBAL, INC.

I. INTRODUCTION.

Spire Global, Inc. ("Spire")[1] supports the The Boeing Company ("Boeing") and Air Line Pilots Association, International ("ALPA")[2] comments favoring expanded 978 MHz use as the

[1] Spire is a space-to-cloud analytics company that utilizes proprietary satellite data and algorithms to provide the most advanced maritime, aviation, and weather tracking in the world. Spire's data analytics is backed by a wholly-owned and developed constellation of nanosatellites, global ground station network, and 24/7 operations that provide real-time global coverage of every point on Earth. To learn more, visit www.spire.com.

Federal Communications Commission ("Commission") proposed in its Notice of Proposed Rulemaking in the above-captioned proceedings.[3]

Boeing and ALPA support the proposed broader use of 978 MHz, in addition to 1090 MHz, [4] for vehicle squitters and for its use over a larger geographic portion of the airport, rather than only the airport movement area.[5] As the Commission states in the *NPRM*, the proposed broader use "can enhance operational flexibility for airport managers without increasing the risk that vehicle squitters would cause interference to other airport communications, thereby enhancing the safety of passengers and airport workers."[6]

Spire agrees. Considering the Commission's renewed support of 1090 MHz ADS-B operations[7] and rapidly increasing number of flights using 1090 MHz transponders,[8] 978 MHz vehicle squitter use will provide a needed alternate frequency for the tracking of ground vehicles operating on runways and taxiways. It will decrease congestion on 1090 MHz and provide Air

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[2] *See* Comments of Boeing, WT Docket No. 19-140, *et al.* (filed Sept. 3, 2019) ("Boeing Comments"); Comments of ALPA, WT Docket No. 19-140, *et al.* (filed Sept. 3, 2019) ("ALPA Comments").

[3] *See Amendment of the Commission's Rules to Promote Aviation Safety*, Notice of Proposed Rulemaking, WT Docket No. 19-140, *et al.*, ¶¶ 46-47 (rel. Jun. 7, 2019) ("*NPRM*"). Spire previously advocated for new space-based Automatic Dependent Surveillance-Broadcast ("ADS-B") reception and Flight Information Services – Broadcast ("FIS-B") transmission frequency allocations. *See* Comments of Spire, WT Docket No. 19-140, *et al.*, at 2-4 (filed Sept. 3, 2019) ("Spire Comments").

[4] *See* Boeing Comments at 16-17; ALPA Comments at 5.

[5] *See NPRM* ¶¶ 46-47.

[6] *See id.* ¶ 47.

[7] *See id.* ¶¶ 22-25.

[8] *See* Spire Comments at 2, 4 ("From 2017 to 2018, nearly 4 billion people, more than half the world's population, travelled over a network of 22,000 routes, a year-over-year increase of 1300 new city pairs [….] Around 835,000 non-model and 1.39 million model small UAS will be flying in the United States by 2023.").

Traffic Controllers and pilots better situational awareness.[9] While it supports the broader 978 MHz use, Spire also reminds the Commission that it should protect current terrestrial and potential space-based 978 MHz FIS-B operations that are critical for weather data provision to all aircraft.[10]

For all of the reasons stated above, Spire requests that the Commission allow for broader 978 MHz use.

Respectfully submitted,

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[9] *See*, *e.g.*, Boeing Comments at 16; ALPA Comments at 5.

[10] *See* Spire Comments at 4-6 ("Spire's constellation will also deliver 100,000 weather profiles daily, providing key inputs into the world's weather models. Aircraft can receive Spire weather data from Spire satellites through FIS-B transmissions to improve route/fuel efficiencies and circumvent rough weather and other phenomena such as volcanic ash and dust cloud eruptions, which cause wear on engines and propellers and impair cockpit visibility.").